

WHAT IS CLAIMED IS:

1. A millimeter-wave radar comprising:
 an antenna base having a
transmission/reception antenna;
 a housing fixing the antenna base; and
 at least a radome or a radar cover enclosing
the antenna base;
 wherein the radome or the radar cover is
provided with a radio wave absorbing layer.
2. A millimeter-wave radar according to claim 1,
wherein the radio wave absorbing layer is provided to a
side surface of the radome or the radar cover.
3. A millimeter-wave radar according to claim 1,
wherein the radio wave absorbing layer has its
performance adjusted according to its position with
respect to the transmission/reception antenna.
4. A millimeter-wave radar according to claim 1,
wherein the radio wave absorbing layer has a higher
dielectric loss than that of a material of the radome
or the radar cover.
5. A millimeter-wave radar according to claim 1,
wherein the radio wave absorbing layer is a magnetic
loss layer.
6. A millimeter-wave radar according to claim 1,
wherein the radio wave absorbing layer has a higher
dielectric constant than that of a material of the
radome or the radar cover.
7. A millimeter-wave radar according to claim 1,

wherein the radome and the radar cover use a material with a dielectric constant of 3.0 or lower in a portion thereof corresponding to a front of the transmission/reception antenna.

8. A millimeter wave-radar according to claim 1, wherein the radome and the radar cover use, as a main ingredient in a portion thereof corresponding to a front of the transmission/reception antenna, at least one of polycarbonate, syndiotactic polystyrene, polypropylene and a combination of these materials as a main ingredient and ABS.

9. A millimeter wave-radar according to claim 1, wherein the radio wave absorbing layer is formed of only a layer having a predetermined angle to a surface of the transmission/reception antenna or of a combination of the layer having the predetermined angle and a layer having a predetermined angle to a normal of the surface of the transmission/reception antenna.

10. A millimeter wave-radar according to claim 1, wherein the radio wave absorbing layer is a mesh of less than $1/4$ of wavelength.

11. A millimeter wave-radar according to claim 1, wherein the radio wave absorbing layer includes at least one of carbon nanotube, carbon microcoil, shungite carbon, carbon black, expanded graphite, carbon fiber and hexagonal ferrite.

12. A millimeter wave-radar comprising:
an antenna base having a

transmission/reception antenna;

a housing fixing the antenna base; and

at least a radome or a radar cover enclosing the antenna base;

wherein the radome or the radar cover has a greater dielectric constant in a portion thereof corresponding to a side of the transmission/reception antenna than in a portion thereof corresponding to a front of the antenna.

13. A millimeter wave-radar according to claim 12, wherein the radome and the radar cover use in a portion thereof corresponding to a front of the transmission/reception antenna a material with a dielectric constant of 3.0 or lower.

14. A millimeter wave-radar according to claim 12, wherein the radome and the radar cover use, as a main ingredient in a portion thereof corresponding to a front of the transmission/reception antenna, at least one of polycarbonate, syndiotactic polystyrene, polypropylene and a combination of these materials as a main ingredient and ABS.

15. A millimeter wave-radar comprising:

an antenna base having a transmission/reception antenna;

a housing fixing the antenna base; and

at least a radome or a radar cover enclosing the antenna base;

wherein the radome or the radar cover has a

dielectric constant which progressively increases from a front of the transmission/reception antenna toward a side of the antenna.

16. A millimeter wave-radar according to claim 15, wherein the radome and the radar cover use in a portion thereof corresponding to a front of the transmission/reception antenna a material with a dielectric constant of 3.0 or lower.

17. A millimeter wave-radar according to claim 15, wherein the radome and the radar cover use, as a main ingredient in a portion thereof corresponding to a front of the transmission/reception antenna, at least one of polycarbonate, syndiotactic polystyrene, polypropylene and a combination of these materials as a main ingredient and ABS.

18. A method of manufacturing a millimeter wave-radar, wherein the millimeter wave-radar comprises an antenna base having a transmission/reception antenna, a housing fixing the antenna base, and at least a radome enclosing the antenna base or a radar cover enclosing the radome; the manufacturing method integrally forming into a one-piece structure the radome or radar cover and a radio wave absorbing layer through an insert molding or double molding process.

19. A method of manufacturing a millimeter wave-radar, wherein the millimeter wave-radar comprises an antenna base having a transmission/reception antenna, a housing fixing the antenna base, and at least a radome

enclosing the antenna base or a radar cover enclosing the radome; the manufacturing method integrally forming into a one-piece structure through an insert molding or double molding process, materials having different dielectric constants and forming the radome or radar cover.